

COMPOSITIONS AND METHODS FOR TREATING CELLULAR RESPONSE TO
INJURY AND OTHER PROLIFERATING CELL DISORDERS REGULATED BY
HYALADHERIN AND HYALURONANS

ABSTRACT OF THE DISCLOSURE

The present invention provides compositions and methods for treating a tissue disorder associated with a response-to-injury process or proliferating cells in a mammal. These tissue disorders are associated with a novel cellular phenotype designated as "transition cells" which are described herein. This cellular phenotype is characterized in having an activated *erk* kinase signaling activity, a stimulated AP-1 binding activity, and at least one characteristic selected from the group consisting of: (a) increased podosome formation, (b) increased flux of intracellular or extracellular hyaluronans or hyaladherins, (c) increased expression of a hyaladherin, (d) an inability to form focal adhesions, (e) increased metalloproteinase activity, and (f) increased expression of a hyaladherin. Example tissue disorders include fibrosis, inflammation, degeneration and invasive disorders such as occur in cancerous cells. The methods provided herein include administering to the mammal, an effective amount of a composition that alters the activity of transition molecules within a cell. Transition molecules are shown to be comprised of hyaladherins, hyaluronans and associated molecules that regulate the transitional phenotype. A novel cell culture comprising transition cells is also provided, as well as compositions comprising particular peptides, polypeptides, and antibodies that affect the transitional phenotype.